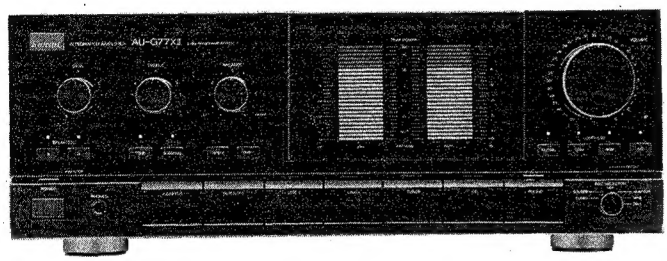
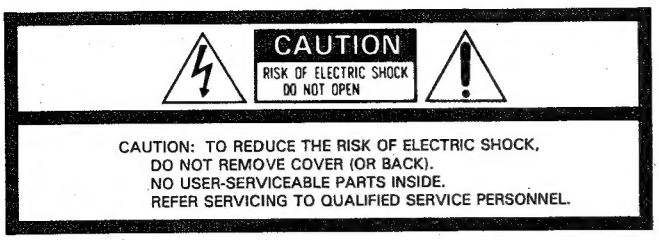
AU-G77XII

OPERATING INSTRUCTIONS
MODE D'EMPLOI
MANUAL DE INSTRUCCIONES

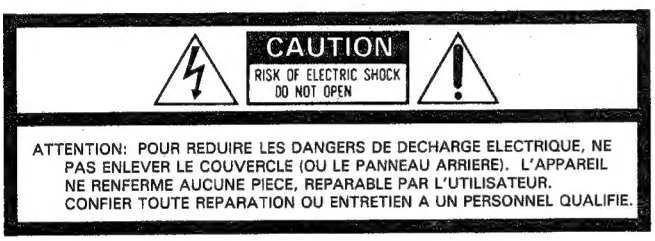


Sansui



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



Le symbole à flèche brisée dans un triangle équilatéral a pour but d'attirer l'attention de l'utilisateur sur la présence, à l'intérieur du coffret, d'une "tension dangereuse" non isolée qui est d'une importance suffisante pour constituer un risque de décharge électrique pour les êtres humains.

Le point d'exclamation dans un triangle équilatéral a pour but de signaler à l'utilisateur la présence d'explications importantes, relatives à l'exploitation et à l'entretien, dans le texte accompagnant l'appareil.

La iluminación parpadea con un símbolo de flecha, dentro de un triángulo equilátero, para avisar al usuario de la presencia de "tensión peligrosa" no aislada dentro de la caja del aparato de una magnitud suficiente para constituir peligro de descargas eléctricas para las personas.

El punto de exclamación de dentro del triángulo equilátero es para avisar al usuario de la presencia de instrucciones importantes de operación y mantenimiento (servicio) en los manuales que se sirven con el aparato.

ENGLISH

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WARNING: To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

- **The Model No. and Serial No. of your unit are shown on its back panel.**
- **SANSUI attests that this product conforms with EEC directive 82/499/EEC.**

FRANÇAIS

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ATTENTION: Pour éviter les dangers d'électrocution ou d'incendie, ne pas exposer cet appareil à la pluie ou à l'humidité.

- **Le numéro du modèle et le numéro de série de l'appareil sont inscrits sur son panneau arrière.**
- **La société SANSUI déclare que cet appareil est conforme aux prescriptions de la directive 82/499 CCE.**

ESPAÑOL

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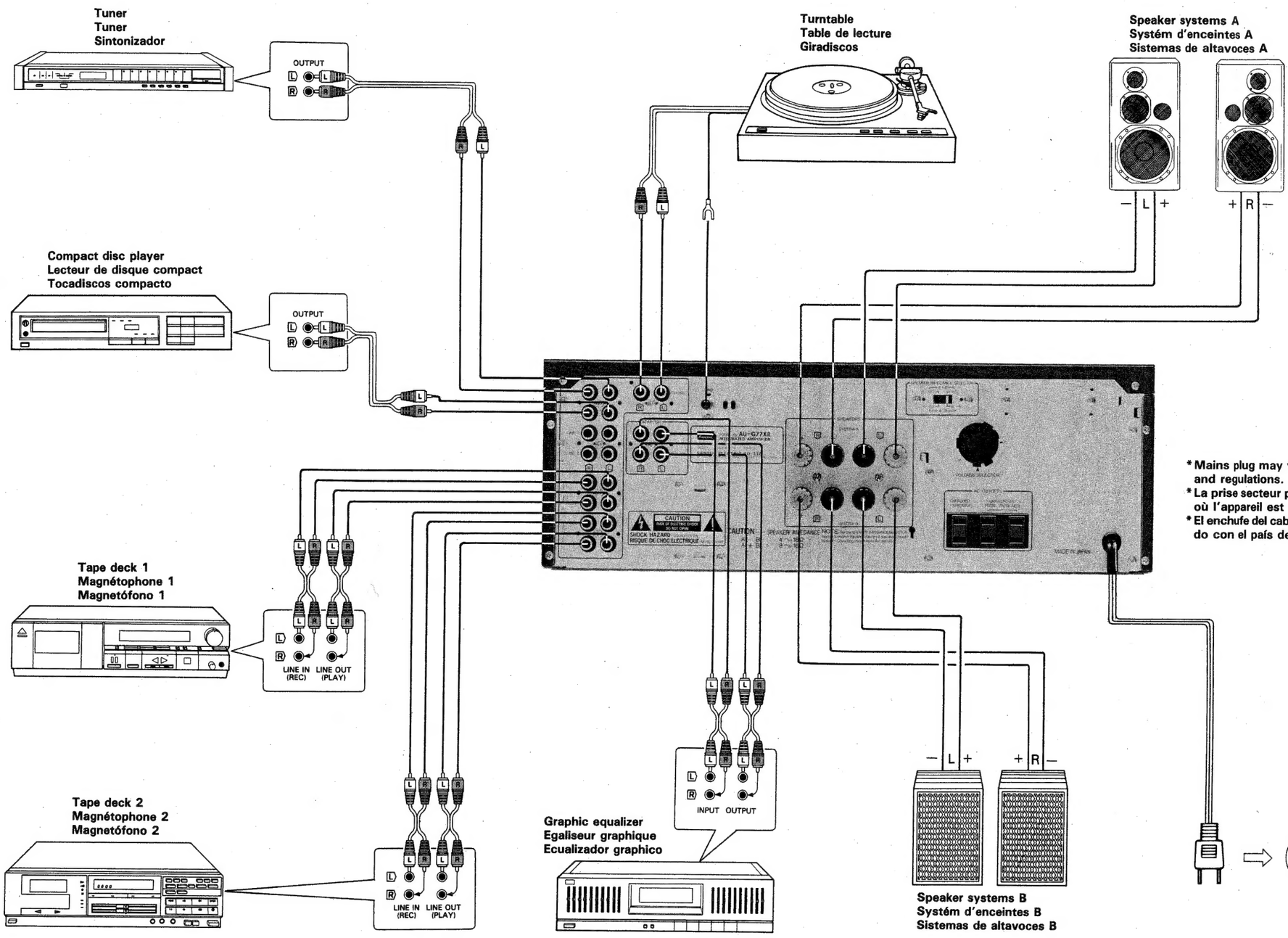
AVISO: Para evitar incendios y descargas eléctricas, no exponer este aparato a la lluvia ni a la humedad.

- **El Nº de modelo y el Nº de serie de este aparato están impresos en el panel posterior.**
- **SANSUI garantiza que este producto está conforme con las directrices de EEC 82/499.**

Connection diagram (Refer to page 6 for the detailed connections of each units.)
Schéma de branchement (On trouvera, en page 14, des détails sur la connexion de chaque appareil.)
Diagrama de conexiones (Referirse a la página 22 para ver las conexiones detalladas de cada unidad.)



* Mains plug may vary to some extent depending on sales area, local laws and regulations.
* La prise secteur peut varier dans une cortaine mesure en fonction du pays où l'appareil est vendu et des lois et réglementations de ce pays.
* El enchufe del cable de alimentación peude variar hasta cierto punto de acuerdo con el país de venta, leyes vigentes y regulaciones.

* For the United Kingdom only
* Pour le Royaume-Uni seulement
* Sélo para el Reino Unido

Thank you for purchasing this fine SANSUI product. Taking the time to read these operating instructions carefully before use will acquaint you fully with all its features and help ensure optimum performance.

* **In order to simplify the explanation illustrations may sometimes differ from the originals.**

Precautions

Power plug
When disconnecting the power cord from the power outlet, always take hold of the plug, and not the wire, and pull free. Never connect or disconnect the power plug with wet hands since you may receive an electric shock.

* Remember to disconnect the power plug from the power outlet when you do not intend to use the unit for a prolonged period of time.

Do not remove the case and bottom panel
Any inspections or adjustments inside the unit may lead to malfunctions and electric shocks. Do not touch any of the inside parts. SANSUI's warranty is not effective if a deterioration in the unit's performance results from remodeling inside.

Do not block the ventilation holes
Do not block the ventilation holes on the top of the unit by placing records or other objects over them. This will increase the inside temperature and may lead to a failure or malfunction.

Installation precautions
Do not install the unit in any of the following locations since this may result in a deterioration in performance or malfunction:

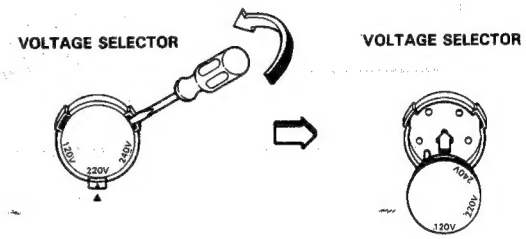
* Locations exposed to direct sunlight or near objects radiating heat such as heating appliances.
* Locations exposed to moisture or humidity.
* Locations with poor ventilation exposed to dust and dirt.
* Locations which are unstable and not perfectly flat or which are susceptible to vibration.

Do not wipe with thinners
Wipe the panels and case from time to time with a soft cloth. Using any kind of thinner, alcohol or volatile liquid will mar the surface, cause blotching on the exterior and erase the markings and should therefore be avoided.
Do not use insecticide sprays in the vicinity.

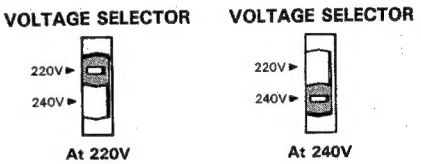
This unit dissipates the heat most effectively when installed on a flat surface. Do not stand it up or install it at an angle.

Before connecting the power plug
Before connecting the power plug to an electrical outlet, check to be sure that the unit is set to the proper voltage for your area. If the voltage of the unit is improperly set, fire hazard or damage to the unit may result. If you find that the unit is not set to the proper voltage for your area, follow the instructions listed below:

- **Units with 120V/220V/240V VOLTAGE SELECTOR at rear panel**
  These units are set at either 120V, 220V or 240V with the VOLTAGE SELECTOR. To change the voltage use a minus screwdriver to remove the plug, and reinsert it so that the mark (▲) matches the desired voltage.



- **Units with 220V/240V VOLTAGE SELECTOR switch at rear panel**
  These units are set at either 220V or 240V with the VOLTAGE SELECTOR switch. To change the voltage, use a minus screwdriver or similar device to slide the switch.



- **Units without voltage selector switch**
  Units destined for some areas are not fitted with a voltage selector switch due to laws and regulations existing in those areas. In such a case, the power supply voltage is set to the voltage used in the area where the unit is purchased.
  If the unit is to be used in an area where the power requirements are different, make sure you consult your nearest authorized SANSUI Service Station.

Connections

ENGLISH

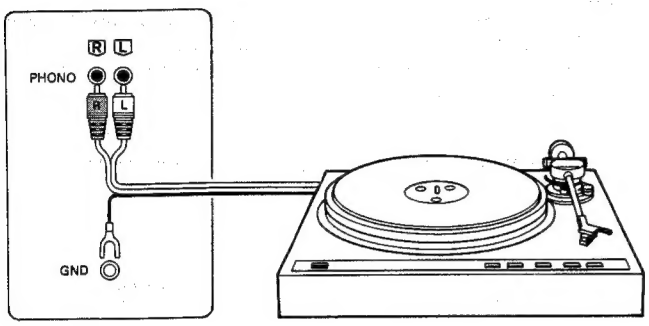
Refer to page 3 connection diagram as you read the followig.

Connection precautions

* When connecting, either disconnect the power plug from the power outlet or turn off the unit's power using the POWER switch.
* Before connecting, read through the Operating Instructions of the other audio components which will be connected to this unit.
* Check the left and right channels and connect properly (L to L and R to R).
* Insert the plugs securely. Improper connection can lead to the generation of noise.

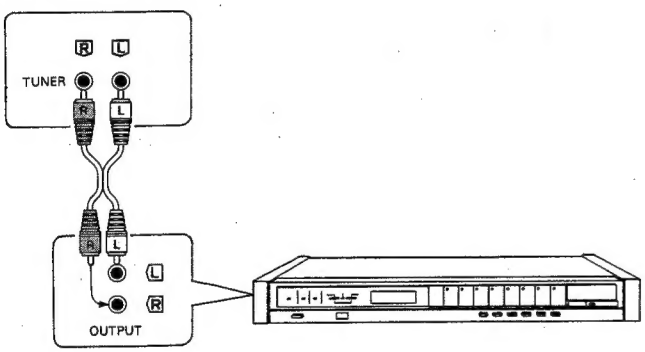
Turntable

Connect the turntable's output cord L (white) plug to the L PHONO terminal and the R (red) plug to the R terminal. If your turntable is equipped with a grounding cable, connect it to the unit's GND terminal.



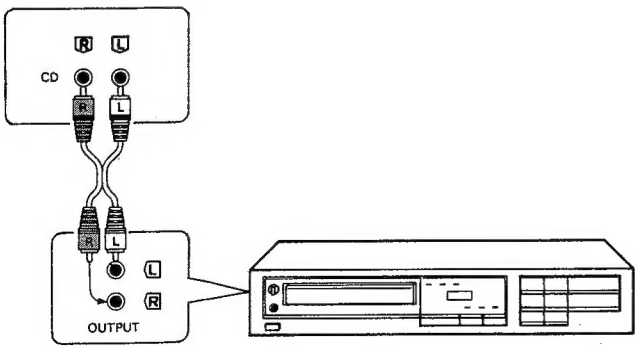
Tuner

Connect the TUNER terminals with the OUTPUT terminals on the tuner using the pin plug cord.



Compact disc player

When a compact disc player is used, it should be connected to the CD terminals.
Use a pin plug cord to connect the unit's CD terminals to the OUTPUT terminals of the compact disc player.



LINE-1, -2 terminals

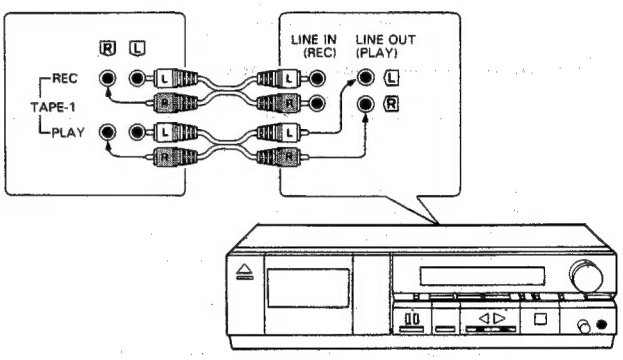
The LINE-1, -2 terminals are supplementary terminals with the same electrical specifications as the TUNER and TAPE PLAY terminals. A tape deck for playback only, or a second tuner can be connected to these terminals. Use a pin plug cord to connect these terminals to the OUTPUT terminals of the desired component.

Tape deck

When a single tape deck is to be used, connect it to the TAPE-1 terminals. A second tape deck may be connected to the TAPE-2 terminals, allowing you to perform simultaneous recording or tape dubbing (copying).

Recording connections: Connect the tape recording (REC) terminals to the recording input (LINE IN) terminals on the tape deck using the pin plug cord.

Playback connections: Connect the tape playback (PLAY) terminals to the playback output (LINE OUT) terminals on the tape deck using the pin plug cord.

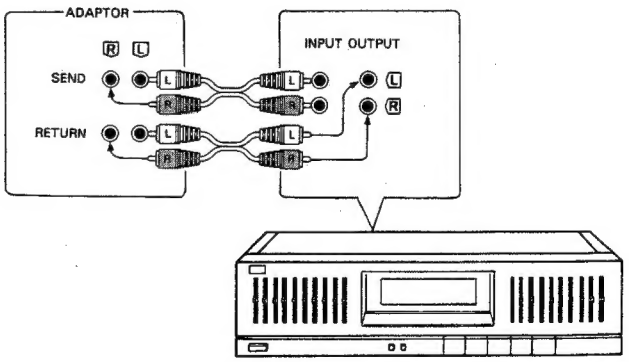


Adaptor

When using a graphic equalizer (SE-80, etc.), connect it to the ADAPTOR terminal of this unit.

INPUT connection: Connect the ADAPTOR SEND terminal of this unit to the INPUT terminal of the graphic equalizer using a pin-plug cord.

OUTPUT connection: Connector the ADAPTOR RETURN terminal of this unit to the OUTPUT terminal of the graphic equalizer using a pin-plug cord.

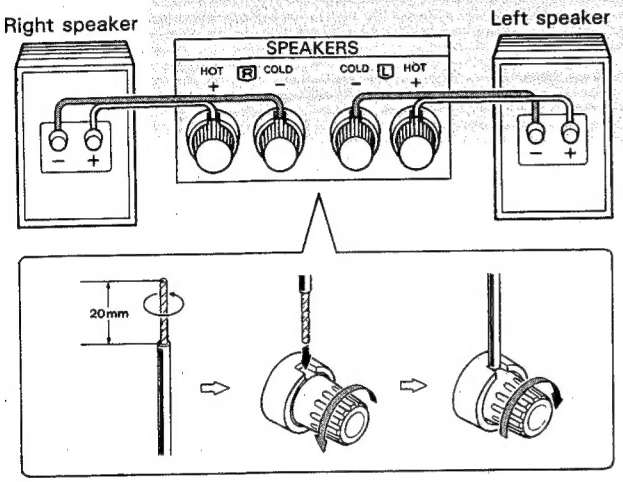


Speaker systems

Connect the speaker systems to the SPEAKERS terminals on the rear panel of the unit with the speaker cord. Two sets of speaker systems can be connected, one to SYSTEM-A and one to SYSTEM-B of the SPEAKERS terminals.

When viewed from the front (the listening position), the speaker mounted on the left should be connected to the L terminals, and the speaker mounted on the right should be connected to the R terminals.

Be sure to connect the polarities of the speaker systems and the SPEAKER terminals correctly (+ to +, − to −). If the polarities of one of the speaker systems is connected improperly, sound in the central area between the speakers will appear to be missing, and the position of instruments will not be clear, resulting in a loss of stereo directionality, so take care when connecting.



* When connecting, do not allow the conductor of the speaker cords to be exposed from the terminals and come into contact with other terminals.
* Since the output stage of this unit is in the form of a bridge, the SPEAKERS negative terminals (−) must not be connected in common; they also must not be connected to the GND terminal (chassis) of other components.

About speaker system impedance

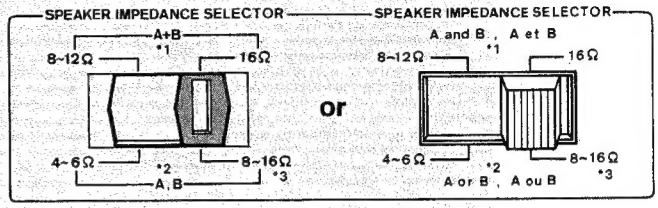
When the two speaker systems connected to the SYSTEM-A and SYSTEM-B terminals are to be used separately, their rated impedance may range from 4 ~ 16 ohms, but when two systems are to be used together (A + B), the rated impedance of both systems should be 8 ohms or more. If even one of the speaker systems has a rated impedance of less than 8 ohms, the protection circuit may operate during play, or malfunction may result.

SPEAKER IMPEDANCE SELECTOR switch

Located on the rear panel, this switch should be set to the rated impedance of the speaker systems connected to the unit.

- The rated impedance is shown on the units themselves, or in the operating instructions, of your speakers.

If this switch is not set properly, full output may not be achieved, or abnormal heat may be produced.



*1: When using both sets of the speaker systems connected to SPEAKERS SYSTEM-A and -B terminals.
*2: When using only one set of speaker systems connected to either SPEAKERS SYSTEM-A or -B terminals.
*3: Rated impedance of speaker system.

AC OUTLETS

This unit is provided with auxiliary AC OUTLETS which are handy for connecting a tuner, tape deck or turntable to supply power to these units.

SWITCHED (100W capacity): The power of the connected components is switched on and off when the unit's POWER switch is operated.

UNSWITCHED (250W total capacity): The power is supplied to the connected components regardless of the position of the unit's POWER switch.

It is extremely dangerous to connect an electrical appliance having a power consumption exceeding the specified capacity. Before connecting the appliance or components, check its power consumption rating.

- A high voltage flows to the AC OUTLETS and so hairpins or other metal objects must not be inserted since this will result in an electric shock.

NOTE: Depending on the laws and regulation enforced locally, models without AC outlets may be supplied to some areas. Also, depending on the sales area, the shape of the AC outlets and their capacity may differ.

For the United Kingdom only

Important

The wires in this mains lead are coloured in accordance with the following code:

Blue: **Neutral**
Brown: **Live**

If the colours of the wires in the mains lead of this equipment should not correspond to the coloured markings identifying the terminals in your plug, proceed as follows:

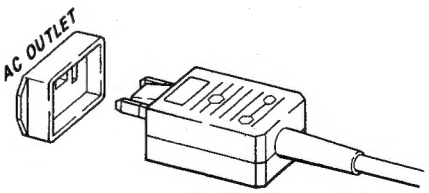
The wire which is coloured **blue** must be connected to the terminal which is marked with the letter 'N' or coloured black.

The wire which is coloured **brown** must be connected to the terminal which is marked with the letter 'L' or coloured red.

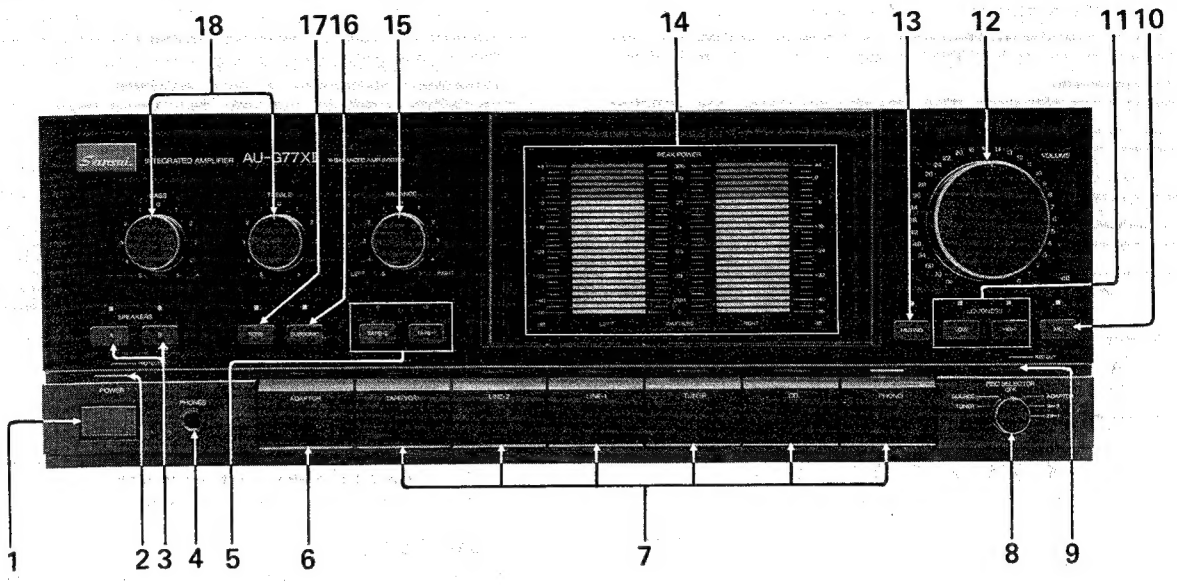
Ensure that your equipment is connected correctly. If you are in any doubt, consult a qualified electrician.

For equipment purchased outside the U.K. with a **"EUROPEAN"** two-pin mains plug, the plug should be removed and connections made in accordance with the above instructions. Ensure also that the equipment is properly adjusted to 240 volts operation. If you are in any doubt, consult a qualified electrician, or our Service Agent in the U.K.

AC outlet on the rear panel accepts AC power plug "BULGIN P.772" or equivalent.



Panel information



1 POWER Switch

2 PROTECTOR Indicator

Power is supplied to the amplifier when this switch is depressed and the indicator winks. After several seconds, the indicator stops winking and lights to indicate that the amplifier is now fully operational. The power is switched off when the switch is released.

* No sound will be heard through the speakers while the indicator is winking. If the indicator changes to winking during operation, it means that the built-in protection circuit has been activated because of trouble inside the amplifier.

3 SPEAKERS Switches

This switch is used to select the speaker system you wish to use. Press the **A** or **B** switch to the "ON" (indicator lights up) position in accordance with the SPEAKERS terminals to which the speaker system is connected.

When using two speaker systems simultaneously, press both switches **A** and **B** to the "ON" position.

When both speaker systems are to be muted, press both switches **A** and **B** to the "OFF" (indicator goes out) position.

* Set the SPEAKER IMPEDANCE SELECTOR switch on the unit's rear panel in accordance with the rated impedance of the speakers you use.
Particularly, be careful when using both A and B speaker systems simultaneously.

4 PHONES Jack

This is the jack for the headphones. Connect the plug on the stereo headphones for private listening.

Adjust the volume so that it does not hurt your ears when using the headphones.

* If you do not intend to use your headphones, always ensure that you unplug them.

5 TAPE-1 and TAPE-2 Switches

These switches are used to select TAPE-1 or TAPE-2 depending upon the tape deck used, when the TAPE (VCR) switch is ON. By pressing one of these switches, the indicator above the switch will light.

TAPE-1: For playing back a tape on the tape deck which you have connected to the TAPE-1 terminals.

TAPE-2: For playing back a tape on the tape deck which you have connected to the TAPE-2 terminals.

6 ADAPTOR Switch

Press this switch when you wish to use a graphic equalizer connected to the ADAPTOR terminal.

By pressing this switch once, the indicator above the switch will light and the unit will go into the return mode, enabling you to listen to sound which has passed through the graphic equalizer. By pressing the switch again, the indicator will go out, and the unit will reutrn to its original mode.

7 Input Selector Switches

These switches are for selecting your desired program source. When a switch is depressed, the indicator above the switch will light.

PHONO: This switch is depressed when you wish to listen to records on the turntable connected to the PHONO terminals.

CD: This switch is depressed when listening to a compact disc using the compact disc player connected to the CD terminals.

TUNER: This switch is depressed when listening to a broadcast using the tuner connected to the TUNER terminals.

LINE-1: This switch is depressed when listening to a sound source using a component connected to the LINE-1 terminals.

LINE-2: This switch is depressed when listening to a sound source using a component connected to the LINE-2 terminals.

TAPE (VCR): Press this switch when you wish to play back an audio tape in a cassette deck or a video tape in a video cassette recorder, which is connected to the TAPE terminals.
By pressing the switch once, the indicator above the switch will light and the unit will go into the playback mode. By pressing it once again, the indicator will go out and the unit will return to its original mode.
When the ADPTOR switch is ON, the TAPE (VCR) switch will not switch over.

* Be sure to press the desired switch (one only) firmly.

8 REC SELECTOR Switch

This switch is used to select the program source to be recorded onto tape. When it is set to a position other than "OFF", the indicator will light up.

TUNER: For recording radio broadcasts received by the tuner connected to the TUNER terminals.

SOURCE: When recording a program source selected by the input selector switch.

OFF: When not recording. The TAPE REC terminals will be cut off from the signal path, preventing any electrical influence from the tape deck.
When not performing tape recording, be sure to set the switch to this position.

ADAPTOR: For recording signals from the component connected to the ADAPTOR terminals.

1 ► 2: When recording a program from a tape deck connected to the TAPE-1 terminals, onto tape decks connected the TAPE-2 terminals.

2 ► 1: When recording a program from a tape deck connected to the TAPE-2 terminals, onto tape decks connected the TAPE-1 terminals.

* When dubbing (when two tape decks are connected to the amplifier), you cannot equalize the dubbing source.

9 REC OUT Indicator

When the REC SELECTOR switch is set to any position other than OFF, this indicator lights to show that recording is possible. The indicator goes out when the REC SELECTOR switch is set to the OFF position.

10 MC Cartridge Switch

This switch is set in accordance with the output voltage of the cartridge used with the turntable when the input selector switch is set to PHONO.

Indicator lit: When the output voltage of the cartridge is low (less than 1 mV) such as in the case of an MC (Moving Coil) cartridge, press this switch to the depressed position (indicator lit).

Indicator out: When the output voltage of the cartridge is high (1 mV or more) such as in the case of an MM (Moving Magnet) cartridge, press this switch to return it to its original position (indicator out).

11 LOUDNESS Switches (LOW, HIGH)

The sensitivity of the human ear at low and high frequencies falls off at low volume levels, and the resulting sound appears to lack bass and treble.

LOW Switch: By pressing this switch at low volume levels, the indicator will light and the bass will be suitably accentuated.

HIGH Switch: By pressing this switch at low volume levels, the indicator will light and the treble will be suitable accentuated.

By pressing these switches once again, the respective indicators will go out, the loudness circuit will be disconnected, and the original frequency characteristics will be obtained.

12 VOLUME Control

This control adjusts the volume of the speakers or headphones. The sound is increased as it is rotated clockwise. Listen to music and set it to a comfortable listening level.

13 MUTING Switch

This switch cuts the volume by 20 dB. Depress it when you want to temporarily reduce the volume; the indicator lights and the sound is muted. When the switch is released, the indicator goes off and the sound regains its former strength. Bear in mind that the volume is increased rather suddenly.

14 Peak Power Display

This indicates the power output and so monitor this display when adjusting the volume. Displayed is the output power* in watts when speakers with an 8-ohms impedance are used.

* When impedance is other than 8 ohms, the actual output will differ from output shown on the display. Conversion is then necessary for correct readings. To do so, multiply the read value by 8, divided by the connected speaker's impedance.

$$\text{Indicated power (watts)} \times \frac{8}{\text{Speaker's impedance (ohms)}} = \text{Correct power (watts)}$$

15 BALANCE Control

The volume of the left and right speakers can be adjusted by the BALANCE control. As the control is turned counterclockwise from the center position, the sound from the left speaker becomes louder than that from the right speaker, and vice versa. Adjust so that the sounds from the left and right speakers are heard with equal volume at your listening position.

16 SUBSONIC Switch

When this switch is depressed, the indicator lights, and low frequencies (16 Hz) outside the audible range are attenuated 6 dB/oct by the subsonic filter. When warped records are played, extra-low-frequency noise is produced, resulting in distortion and poor tonal qualities. This filter helps reduce such distortion.
When the switch is pressed again, the indicator goes out, and the filter function is turned off.

17 TONE Switch

When this switch is depressed when the tone controls are rotated to adjust the sound quality, the indicator lights to indicate that the sound can be adjusted.
When the switch is released, the indicator goes off, the tone circuits are isolated from the signal path and the frequency response is made flat.

18 Tone Controls (BASS/TREBLE)

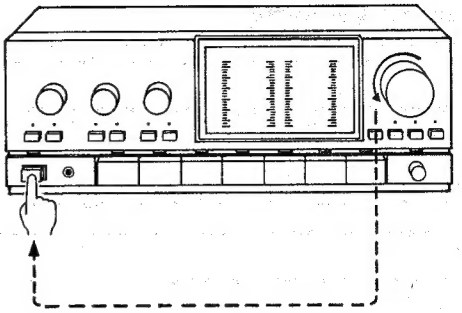
When the TONE switch is at "ON", the sound quality (tone) can be adjusted with these controls.
When the BASS knob is turned from the "0" position to the right, the low frequencies will become stronger, and when it is turned to the left, the low frequencies will become weaker.
When the TREBLE knob is turned from the "0" position to the right, the high frequencies will become stronger, and when it is turned to the left, the high frequencies will become weaker.

Operating procedures

Before switching on the power

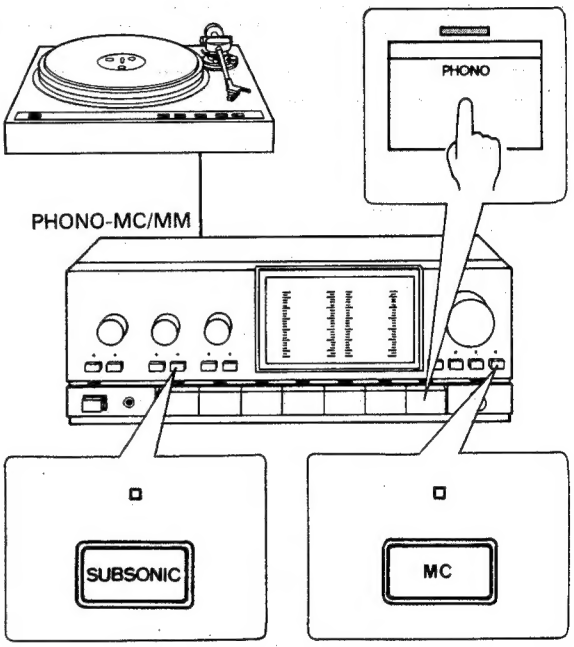
First set the VOLUME control to the minimum position, and then depress the POWER switch to supply the power.

For several seconds after the power has been switched on, the protector circuit is activated until the circuits inside the unit have begun to operate stably, and the PROTECTOR indicator winks. While the protector circuit is activated, no sound will be heard through the speakers. The amplifier is fully operational when the PROTECTOR indicator stops winking and lights.



Basic operation

1. Select the speakers you intend to use with the SPEAKERS switch. If you intend to listen to the sound through your headphones, plug them into the PHONES jack.
2. Depress the input selector switch in accordance with the program source to which you wish to listen.
   Record: Depress the PHONO switch, and set the MC cartridge switch in accordance with the cartridge of your turntable.
   Compact disc: Depress the CD switch.
   Radio broadcast: Depress the TUNER switch.
   Tape: Press the TAPE (VCR) switch of the input selector, then press TAPE-1 or TAPE-2 depending on the tape deck to be used.
   LINE: Depress the LINE-1 or LINE-2 switch.
3. Operate the program source unit.
4. Adjust the sound with the VOLUME control.
5. Attain a balance between the sound of the left and right channels using the BALANCE control.
6. To adjust the tone quality, depress the TONE switch, and then adjust the BASS, and TREBLE control.



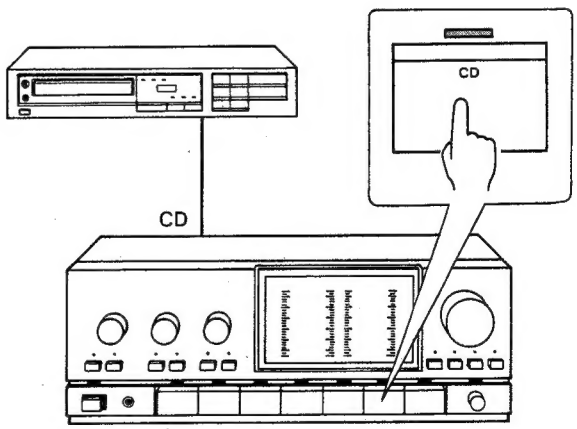
Record play

1. Depress the input selector PHONO switch.
2. Set the MC cartridge switch in accordance with the cartridge used.
   Indicator lit: When the output voltage of the cartridge is low (less than 1 mV) such as in the case of an MC (Moving Coil) cartridge, press this siwtch to the depressed position (indicator lit).
   Indicator out: When the output voltage of the cartridge is high (1 mV or more) such as in the case of an MM (Moving Magnet) cartridge, press this switch to return it to its original position (indicator out).
3. Operate the turntable and play the record.
4. Adjust the volume, balance and tone to your preference.

* When badly warped records are played, ultra-low-frequency noise is generated, undesirable vibrations are applied to the low-frequency speakers (woofers) and the sound quality is adversely affected. If the SUBSONIC switch is depressed, the indicator lights and the ultra-low-frequency noise can be suppressed.

Compact disc playback

1. Depress the input selector CD switch.
2. Operate the compact disc player to playback the compact disc.
3. Adjust the volume, balance, and tone to your preference.



Listening to radio broadcasts

1. Depress the input selector TUNER switch.
2. Operate the tuner and tune in the desired station.
3. Adjust the volume, balance and tone to your preference.

* Weak FM signals are often disturbed by ignition noise from nearby automobiles and other noise. Therefore, for better FM reception, installation of an outdoor FM antenna is suggested. For antenna connection, be sure to use a coaxial cable, not a twin lead type.

Sound reproduction from component connected to LINE terminals

A tuner, tape deck or other stereo component can be connected to the LINE-1 terminals or LINE-2 terminals when you want to listen to a broadcast or tape, etc.

1. Depress the input selector LINE-1 or LINE-2 switch.

* Depress to the LINE-1 switch when the component you are using has been connected to the LINE-1 terminals; depress the LINE-2 switch when the component you are using has been connected to the LINE-2 terminals.

2. Operate the component connected to the LINE-1 or -2 terminals and make it operational.
3. Adjust the volume, balance and tone to your preference.

Tape playback

1. Press the TAPE (VCR) switch of the input selector, then press TAPE-1 or TAPE-2 depending on the tape deck to be used.

* Depress the TAPE-1 switch when the tape deck has been connected to the TAPE-1 terminals; depress the TAPE-2 switch when it has been connected to the TAPE-2 terminals.

2. Operate the tape deck and play back the tape.
3. Adjust the volume, balance and tone to your preference.

* If your tape deck is used for a prolonged period of time, the sound quality will be impaired by dirt on the surface of the heads and capstan, etc.
For optimum tape play, refer to the Operating Instructions of your tape deck and clean the head section regularly.

Tape recording

A record, broadcast or other program source can be recorded on the tape deck connected to the TAPE REC terminals.

1. Set the REC SELECTOR switch to the position corresponding to the program source which is to be recorded.
2. Depress the appropriate input selector switch to select to the program source you want to record.
3. Start playing the program source.
4. Operate the tape deck, adjust the recording level and start recording.

* The volume and the tone of the signals to be recorded cannot be adjusted using the VOLUME and tone controls.

* The functions of the REC SELECTOR switch and input selector switch are independent. It is therefore possible to set the input selector switch to another position during recording and listen to an alternative program source.

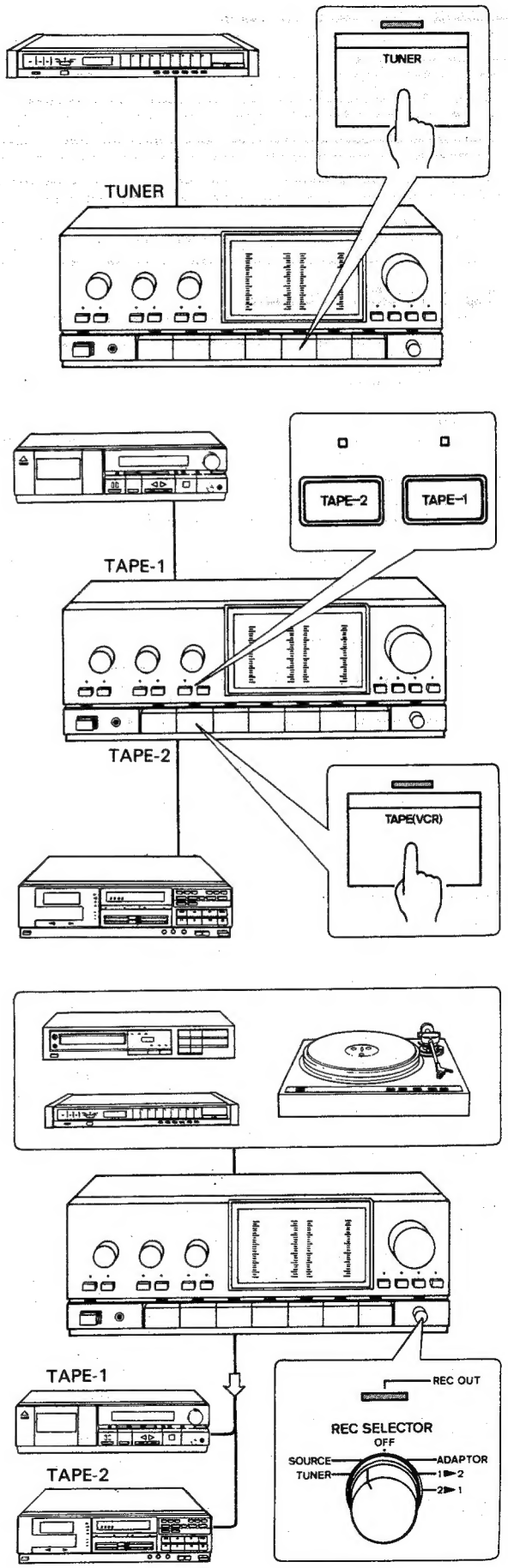
* By connecting a video cassette recorder to TAPE-1 or TAPE-2 terminal, you can record another program source on the video tape or play back the audio on the video tape in the same way as when recording or playing back an audio cassette tape.

* **With some video cassette recorders, if audio alone is recorded, the sound quality may be degraded. Check the operating instructions of your video cassette recorder.**

Monitoring the recording

Monitoring recordings can be performed only with a 3-head tape deck with independent recording and playback heads. ("Monitoring" refers to playing back the sound which has been recorded during the recording process.) It cannot be performed with a tape deck having a record/play back combined head.

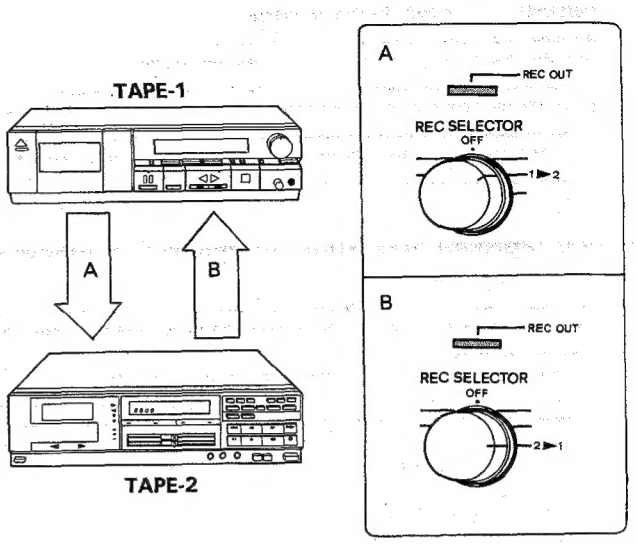
1. Set the tape monitor switch on the tape deck to the TAPE position.
2. Press the TAPE (VCR) switch of the input selector, then press the TAPE-1 or TAPE-2 switch depending on the tape deck in which the tape is to be recorded.



Dubbing from tape to tape

Two tape decks can be used to dub the contents of a pre-recorded tape onto another tape.

1. Set the REC SELECTOR switch to the 1 ► 2 or 2 ► 1 position.
   * Set to 1 ► 2 when dubbing from tape deck 1 to tape deck 2; set to 2 ► 1 when dubbing from tape deck 2 to tape deck 1.
2. Operate the playback and recording tape decks and start recording.
   * It is possible to listen to another program source during tape dubbing through the speakers. In this case, set the input selector switch to the position corresponding to the program source you want to hear.
   * To check the sound during tape dubbing, press the TAPE (VCR) switch of the input selector, then press TAPE-1 or TAPE-2 switch.



Using a graphic equalizer

By using a graphic equalizer connected to the ADAPTOR terminal, you can equalize and play a source connected to the CD, PHONO, LINE-1, -2, or TUNER input terminals, and also record the equalized sound on a tape deck.

Playback

1. Set the input selector to the desired program source (CD, PHONO, LINE-1, -2, or TUNER).
2. Press the ADAPTOR switch. (The indicator will light.)
3. Play back the program source.
4. Using the graphic equalizer, apply the desired amount of equalization.
   * When not using the graphic equalizer, set the ADAPTOR switch to OFF (indicator out).

Recording

1. Set the REC SELECTOR to ADAPTOR.
2. Using the input selector, select the program source to be recorded.
3. Press the ADAPTOR switch. (The indicator will light.)
4. Play the program source.
5. Using the graphic equalizer, apply the desired amount of equalizaiton.
6. Operate the tape deck and start recording.
   * When dubbing (when two tape decks are connected to the amplifier), you cannot equalize the dubbing source.

Specifications

Power output
Min. RMS, both channels driven, from 20 to 20,000 Hz, with no more than 0.008% total harmonic distortion.
110 watts per channel into 8 ohms.

Load impedance ..... 4 to 16 ohms
Total harmonic distortion ..... less than 0.008% at or below rated min. RMS power output
Intermodulation distortion (60 Hz: 7 kHz=4:1 SMPTE method) ..... less than 0.01% at rated power output
Frequency response (at 1 watt)
Overall (from CD) ..... 5 to 100,000 Hz, +0 dB −3.0 dB
RIAA curve deviation (PHONO-MM, 20 Hz to 20 kHz) ..... +0.5 dB, −0.5 dB
Input sensitivity and impedance (at 1 kHz)
PHONO (MC) ..... 300 μV/100 ohms
PHONO (MM) ..... 2.5 mV/47 kohms
(Max. input capability; 150 mV at 1 kHz, less than 0.1% total harmonic distortion)
CD ..... 150 mV/47 kohms
TUNER, LINE-1, 2, TAPE PLAY-1, 2, ADAPTOR ..... 150 mV/47 kohms
Output level (1 kHz)
TAPE REC-1, 2 ..... 150 mV into 47 kohms
Signal to noise ratio (short-circuit, A-network)
PHONO (MC) ..... 70 dB
PHONO (MM) ..... 87 dB
CD ..... 100 dB
TUNER, LINE-1, 2, TAPE PLAY-1, 2 ..... 100 dB

Controls and Filter
BASS ..... ±8 dB at 50 Hz
TREBLE ..... ±8 dB at 10 kHz
SUBSONIC ..... −3 dB at 16 Hz (6 dB/oct)
MUTING ..... −20 dB
LOUDNESS (LOW) ..... +10 dB at 50 Hz
(HIGH) ..... +6 dB at 10 kHz
(VOLUME: −30 dB position)

Power requirements
Power voltage ..... 120/220/240 V (50/60 Hz)
For U.S.A. & Canada ..... 120 V (60 Hz)
Power consumption ..... 370 watts 470 VA Rated
550 watts Maximum

Dimensions ..... 430 mm (16-15/16") W
160 mm (6-5/16") H
425 mm (16-3/4") D

Weight ..... 14.3 kg (31.5 lbs) net
16.0 kg (35.3 lbs) packed

* **Design and specifications subject to changes without notice for improvements.**
* **Due to local laws and regulations, this unit sold in some areas are not equipped with variable voltage selectors.**